



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/487,529

01/19/2000

David A. Wood

5181-38400

3267

7590

12/29/2005

B. NOEL KIVLIN

MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.

P.O. BOX 398

AUSTIN, TX 78767-0398

EXAMINER

HOANG, PHUONG N

ART UNIT

PAPER NUMBER

2194

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/487,529

Applicant(s)

WOOD ET AL.

Examiner

Phuong N. Hoang

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/23/02.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. Claims 1 – 30 are pending for examination.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1 – 7, 15 – 16, 18 – 21, 23, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chih-Lui I, US patent no. 6,088,335 in view of Shad, US patent no. 5,410,536.**

4. Chih-Lui and Shad I references were cited in the last office action.
5. **As to claim 1**, Chih-Lui I teaches a computer system comprising the steps of:  
a first device (mobile station, col. 7 lines 35 - 45); and  
a second device (base station, col. 7 lines 35 - 60) coupled to the first device;

wherein the first device is configured to convey a first request (mobile station signals a request to the base station, col. 7 lines 35 - 60) to the second device, wherein the second device is configured to receive the first request, wherein the second device is configured to detect a temporarily unavailable condition (if the scheduled list is longer than the threshold L, the mobile is told to retry later (retry delay) in step 415. The base station selects the value of this parameter based upon loading conditions at that base station, col. 8 lines 20 - 30), wherein the second device is configured to convey a response to the first device corresponding to the first request, and wherein the response includes a delay value (retry delay, col. 8 lines 20 - 30) corresponding to the temporarily unavailable condition;

the first device re-conveying the first request in excess of a retry limit (when a mobile receives a delay.... Before starting its transmission, col. 8 lines 25 - 30).

Chih-Lui I does not explicitly teach the step of the first device and the second device are configured to cause an error recovery mechanism to be initiated in response to detecting that a retry limit corresponding to the first request is exceeded.

Shah teaches the step of the first device and the second device are configured to cause an error recovery (both nodes are always involved in error recovery....."Retry limit exceeded", col. 19 lines 50 - 63) mechanism to be initiated in response to detecting that a retry limit corresponding to the first request is exceeded.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Chih-Lui I and Shah's system because Shah's error recovery when retry limit exceeded would enable both devices always

Art Unit: 2194

recognize an error while performing a retry option and so remain synchronized, and two systems both teach transmission data packet, and a retry delay is sent when the received node or station is in temporarily unavailable condition.

6. **As to claim 2**, Chih-Lui I teaches the step of the first device is configured to receive the response (the mobile receives a delay parameter in a data burst assignment message, , col. 8 lines 20 - 60), and wherein the first device is configured to convey a second request (it initiates such a delay, before starting its transmission of the assigned burst length, col. 8 lines 20 - 60) to the second device at a time corresponding to the delay value.

7. **As to claim 3**, Chih-Lui I teaches the step of in response to receiving the first request the second device is configured to generate delay value according to a type of the temporarily unavailable condition (based upon loading conditions, col. 8 lines 20 - 30) detected at the second device (at the base station).

8. **As to claim 4**, Chih-Lui I teaches the step of wherein the delay value corresponds to a first value (loading conditions, col. 9 lines 45 – col. 10 lines 24) in response to the temporarily unavailable condition corresponding to a first type of condition and wherein the delay value corresponds to a second value (L frames, col. 9 lines 15 – col. 10 lines 24 and col. 20 - 25) in response to the temporarily unavailable condition corresponding to a second type of condition.

9. **As to claim 5**, Chih-Lui I teaches the step of wherein the second device is configured to calculate delay value using one or more variables (m, a1, col. 10 and col. 13) that correspond to one or more previous temporarily unavailable conditions.

10. **As to claim 6**, Chih-Lui I teaches the step of wherein the delay value corresponds to an encoded value (col. 10 and 13).

11. **As to claim 7**, Shad teaches wherein one of different types of error recovery mechanism is to be initiated based on a type of temporarily unavailable condition at the second device (error recover actions are based on the type of error, col. 3 lines 3 – 20).

12. **As to claim 15**, it is a method claim of claim 1. See rejection for claim 1 above.

13. **As to claim 16**, see rejection for claim 2 above.

14. **As to claim 18**, see rejection for claim 6 above.

15. **As to claim 19**, Chih-Lui I teaches the steps of determining a type of the temporarily unavailable condition (loading conditions, col. 8 lines 20 – 30); and generating the delay value (retry delay, col. 8 lines 20 - 30) according to the type of the temporarily unavailable condition.

16. **As to claim 20**, see rejection for claim 5 above.
17. **As to claim 21**, see claim 7 above.
18. **As to claim 23**, see rejection for claim 5 above.
19. **As to claim 27**, Chih-Lui I teaches the step of the wherein said first device is configured to receive said response including the delay value, wherein said first device is configured to convey a second request to said second device at a time corresponding to the delay value (col. 8 lines 15 – 30), and wherein if the second device detects a temporarily unavailable condition when the second request is received at the second device, the second device is configured to determine a second delay value based on the temporarily unavailable condition detected at the second device (col. 8 lines 15 – 30 and col. 11 lines 45 – 50).
20. **Claims 8 – 9, 12 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chih-Lui I, US patent no. 6,088,335 in view of Bailey, US patent no. 5,189,734.**
21. Bailey reference was cited in the last office action.

22. **As to claim 8**, Chih-Lui I teaches a computer system comprising the steps of:  
a first device (mobile station, col. 7 lines 35 - 45); and  
a second device (base station, col. 7 lines 35 - 60) coupled to the first device;  
wherein the first device is configured to convey a first request (mobile station signals a request to the base station, col. 7 lines 35 - 60) to the second device, wherein the second device is configured to receive the first request, wherein the second device is configured to detect a temporarily unavailable condition (if the scheduled list is longer than the threshold L, the mobile is told to retry later (retry delay) in step 415. The base station selects the value of this parameter based upon loading conditions at that base station, col. 8 lines 20 - 30), wherein the second device is configured to convey a response to the first device corresponding to the first request, and wherein the response includes a delay value (retry delay, col. 8 lines 20 - 30) corresponding to the temporarily unavailable condition.

Chih-Lui I does not explicitly teach the step of wherein the second device is configured to store historical data corresponding to previous temporarily unavailable conditions, wherein the second device is configured to determine the delay value based on the stored historical data.

Bailey teaches the step of the second device is configured to store historical data corresponding to previous temporarily unavailable conditions (base station maintain data base of traffic flow ..... Delay, col. 6 lines 1 - 25 and col. 4 lines 40 - 68),



Art Unit: 2194

wherein the second device is configured to determine the delay value based on the stored historical data (the flow data can be effected with the minimum of delay).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Chih-Lui I and Bailey's system because Bailey's data base would provide information to determine the delay value to be reused later when the same unavailable condition repeats.

23. **As to claim 9**, Chih-Lui I teaches the step of wherein the communications medium comprises a switching network (central switch, col. 4 lines 1 – 4).

24. **As to claim 12**, Chih-Lui I teaches the step of in response to receiving the first request the second device is configured to generate delay value according to a type of the temporarily unavailable condition (based upon loading conditions, col. 8 lines 20 - 30) detected at the second device (at the base station).

25. **As to claim 13**, Chih-Lui I does not explicitly teach the step of wherein the delay value corresponds to an encoded value (col. 10 and 13).

Art Unit: 2194

**26. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chih-Lui I, US patent no. 6,088,335 in view of Bailey, US patent no. 5,189,734, and further in view of Chambers, US patent no. 5,884,052.**

**27. As to claim 10,** Chih-Lui I and Bailey do not teach the step of wherein the communications medium comprises a shared bus.

Chamber teaches the step of wherein the communications medium comprises a shared bus (PCI bus, col. 6 - 8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Chih-Lui I, Bailey, and Chamber's system because Chamber's shared bus would be necessary to provide the communication on the network.

**28. As to claim 11,** Chamber teaches the computer system of claim 8, wherein the communications medium comprises an arbitrated loop (the PCI agent attempts a subsequent access.....arbitrates for and acquires ownership of the PCI bus, col. 8 lines 40 - 50).

**29. Claims 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chih-Lui I, US patent no. 6,088,335 in view of Bailey, US patent no. 5,189,734, and in view of Shad, US patent no. 5,410,536.**

30. **As to claim 14**, Chih-Lui I and Bailey do not teach the step of the first device and the second device are configured to cause an error recovery mechanism to be initiated in response to detecting that a retry limit corresponding to the first request is exceeded.

Shah teaches the step of the first device and the second device are configured to cause an error recovery (both nodes are always involved in error recovery....."Regry limit exceeded", col. 19 lines 50 – 63) mechanism to be initiated in response to detecting that a retry limit corresponding to the first request is exceeded.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Chih-Lui I, Bauiley, and Shah's system because Shah's error recovery when retry limit exceeded would enable both devices always recognize an error while performing a retry option and remain synchronized.

31. **Claims 17, 22, 24 - 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chih-Lui I, US patent no. 6,088,335 in view of Shad, US patent no. 5,410,536, and further in view of Bailey, US patent no. 5,189,734.**

32. **As to claim 17**, Chih-Lui I and Shad do not teach the step of the second device is configured to store historical data corresponding to previous temporarily unavailable conditions, wherein the second device is configured to determine the delay value based on the stored historical data.

Bailey teaches the step of the second device is configured to store historical data corresponding to previous temporarily unavailable conditions (base station maintain information about loss of service due to adjacent cells being full, cells which are temporarily out of use due to fault in a base station, or there are no adjacent cells in the estimated direction of travel, col. 6 lines 1 – 25), wherein the second device is configured to determine the delay (delay) value based on the stored historical data.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Chih-Lui I, Shad, and Bailey's system because Bailey's error log would provide information to determine the delay and can be reused later when the same error repeats.

33. **As to claim 22**, Chih-Lui I teaches the second device generate delay value (retry delay, col. 8 lines 15 – 30) based on a number of response corresponding to the temporarily unavailable condition (Bailey, col. 6 lines 1- 25).

34. **As to claim 24**, see rejection for claim 17 above.

35. **As to claims 25 and 26**, Chih-Lui I teaches the step of the delay value may be generated according to a static and dynamic algorithm based on the previous (select value based on loading condition, col. 8 lines 15 – 30).

36. **As to claim 28**, Bailey teaches the step of wherein said type of said temporarily

Art Unit: 2194

unavailable condition is a temporarily loss of system resources, a temporary lack of processing resources on the second device (there are no adjacent cells in the estimated direction of travel, col. 6 lines 1 – 25) , or a lack of a valid virtual to physical address translation.

**37. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chih-Lui I, US patent no. 6,088,335 in view of Shad, US patent no. 5,410,536, and further in view of Barlow, US patent no. 5,210,867.**

**38. As to claim 29,** Chih-Lui I and Shah do not explicitly teach the step of wherein said first device is configured to ignore said delay value received from the second device and independently determine when to send a second request.

Barlow teaches the step of ignore said delay value received from the second device and independently determine when to send a second request (ignore the NAK response and wait for a slow NAKR, col. 8 lines 55 – col. 9 lines 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Chih-Liu I, Shad, and Barlow's system because Barlow's decision when to resend the request would provide an option and the flexibility for the first device to determine when to resend the request that is suitable with demand or the convenience of the device.

Art Unit: 2194

**39. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seo, US patent no. 6,581,176 in view of Bailey, US patent no. 5,189,734.**

40. **As to claim 30**, Seo teaches a computer system comprising the steps of:  
a first device (transmitting station, col. 2 and col. 6 lines 65 – col. 7 lines 5); and  
a second device (receiving station) coupled to the first device;  
wherein the first device is configured to convey a first request (data, col. 2 and col. 6) to the second device, a delay value (delay time, col. 7 lines 30 - 60) is associated with each or a detected one of the plurality of temporarily unavailable conditions (NAK\_TYPE, col. 5 lines 50 – 67), the delay value is programmable (col. 7 lines 54 – 65).

Seo does not explicitly teach the step of the temporarily unavailable conditions is at the destination device.

Bailey teaches the destination device convey a response when the message is successfully received (ACK, col. 5 lines 50 – 60) and is able to warn user of unavailable conditions at the base station by associated with a tag, col. 4 lines 52 – 67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Seo and Bailey's system because Bailey's warning tag would provide an information attached in the NAK message for the first device know the reason of the failed transmission to decide the resend to the same station or not.

***Response to Arguments***

41. Applicant's arguments filed 10/03/05 have been fully considered but they are not persuasive.

42. Applicant argued in substance that

(1) None of the cited art suggested a motivation to combine as to claim 1.

(2) Chih-Lui I fails to teach delay value corresponds to a first value of the first type of condition, and delay value corresponds to a second value of the second type of condition.

(3) Chih\_Lui I and Bailey, whether alone or combined fail to teach a second device is configured to store historical data.

(4) Chih-Lui I and Bailey, whether alone or combined fail to teach a delay value is associated with each of the plurality of temporality unavailable conditions and each delay value is programmable value.

43. Examiner respectfully disagrees with applicant's remark

As to point 1, The cited art did suggest a motivation to combine. Two systems both teach transmission data packet, and a retry delay is sent when the received node or station is in temporarily unavailable condition. Also, Shah's error recovery when retry limit exceeded would enable both devices always recognize an error while performing a retry option and so remain synchronized,

As to point 2, the limitations are mapped more details to clarify the claimed limitation.

Art Unit: 2194

As to point 3, the database maintaining information including traffic flow would be used to detect the minimum of delay (col. 6 lines 1 – 25 and col. 4 lines 40 – 68).

As to point 4, examiner cited the new reference for this claim.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is (571)272-3763. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ph  
December 22, 2005

  
**WILLIAM THOMSON**  
SUPERVISORY PATENT EXAMINER